

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of selecting a desirable system from ~~in a mobile station storing a list of wireless communications systems~~ stored in a mobile station, a system acquisition procedure comprising the steps of:

~~selecting, by the mobile station, each of a plurality of wireless communications systems;~~

~~initiating, by the mobile station, acquisition/registration attempts by the mobile station in response to selecting each of the plurality of wireless communications systems, wherein the initiating utilizes system identification and corresponding frequency information which are stored in the mobile station prior to the acquisition/registration;~~

~~creating and maintaining, by in the mobile station, system priority data in response to the mobile station initiating the~~ based on acquisition/registration attempts by the mobile station with wireless communication systems, the system priority data including ~~a first plurality of system identifiers and corresponding priority criteria including~~ historical statistical information regarding the acquisition/registration attempts by the mobile station;

~~calculating, in the mobile station, priority criteria from the system priority data to determine desirability levels for respective wireless communication systems; wherein the priority criteria is used to generate and store a priority data summary table in the mobile station;~~

selecting, by the mobile station, a group of wireless communications systems from the list in accordance with a predetermined system selection procedure, the group of wireless communications systems having a first system acquisition order;

reprioritizing, by the mobile station, the group of wireless communications systems in accordance with the priority criteria stored in the priority data summary table, the reprioritized

group of wireless communications systems having a second system acquisition order based upon respective system desirability levels; and

attempting, by the mobile station, to acquire ~~the wireless communications~~ a desirable system is based on the reprioritized group of wireless communications systems ~~that has a highest priority.~~

2. (Previously Presented) The method of Claim 1 wherein the list of wireless communications systems is a preferred roaming list including a geographic region identifier,

wherein the step of selecting a group of wireless communications systems comprises the steps of:

determining, by the mobile station, a current geographic region of the mobile station; and

searching, by the mobile station, the preferred roaming list for wireless communications systems having a geographic region identifier that corresponds to the current geographic region of the mobile station, and

wherein the first system acquisition order is dictated by the relative order of the selected wireless communications systems in the preferred roaming list.

3-6. (Canceled)

7. (Currently Amended) The method of Claim 1 wherein the step of ~~creating and~~ maintaining further comprises the steps of:

detecting, by the mobile station, a communications event for a currently selected wireless communications system, the currently selected wireless communications system having a corresponding system identifier; and

updating, by the mobile station, an entry in the system priority data to reflect the occurrence of the detected communications event, the updated entry including the corresponding system identifier.

8. (Previously Presented) The method of Claim 7 wherein the historical statistical information further includes information regarding system acquisition failures and system access failures.

9. (Original) The method of Claim 7 wherein the corresponding system identifier includes a mode and a frequency.

10. (Previously Presented) The method of Claim 7 wherein the step of updating further comprises calculating, by the mobile station, an occurrence rate of the detected event for the currently selected wireless communications system and storing the calculated occurrence rate.

11. (Original) The method of Claim 10 wherein the detected event is a successful signal acquisition and the calculated occurrence rate is a signal acquisition success rate.

12. (Original) The method of Claim 10 wherein the detected event is a failed system access attempt and the calculated occurrence rate is a system access failure rate.

13. (Previously Presented) The method of Claim 1 wherein the step of reprioritizing comprises sorting, by the mobile station, the group of wireless communications systems in accordance with the priority criteria.

14. (Currently Amended) The method of Claim 1 wherein, if the attempted system acquisition and access fails, the step of attempting is repeated with the ~~listed next~~ system having ~~a next highest priority in the~~ reprioritized group.

15. (Currently Amended) ~~In a mobile station, a~~ A method for ~~of creating and~~ maintaining system priority data in a mobile station, comprising the steps of:

selecting a plurality of wireless communication systems from a list of wireless communications systems;

retrieving frequency, system identification, and mode information, stored in the mobile station prior to the selecting, for each of the plurality of wireless communications systems;

detecting, by the mobile station, a communications event for a currently selected wireless communications system in response to an acquisition/registration attempt initiated by the mobile station, the currently selected wireless communications system having a corresponding system identifier; ~~and~~

updating, by the mobile station, an entry in the system priority data to reflect historical statistical information regarding the acquisition/registration attempts for the detected communications event based upon respective system desirability levels, the entry including the corresponding system identifier; and

calculating priority criteria from the system priority data to determine desirability levels for respective wireless communication systems; wherein the priority criteria is stored in a priority data summary table.

16. (Previously Presented) The method of Claim 15 wherein said historical statistical information further comprise information regarding system acquisition failures and system access failures.

17. (Previously Presented) The method of Claim 15 wherein said historical statistical information further comprise information regarding successful system acquisitions, successful system accesses, and signal power measurements.

18. (Previously Presented) The method of Claim 15 wherein the step of updating further comprises calculating, by the mobile station, an occurrence rate of the detected event for the currently selected wireless communications system and storing the calculated occurrence rate.

19. (Original) The method of Claim 15 wherein each entry in the system priority data includes a timestamp and wherein the entries in the system priority data are deleted after a certain duration of time.

20. (Currently Amended) The method of Claim 15 wherein the step of ~~updating~~ calculating further comprises calculating, by the mobile station, a priority metric based on a

plurality of priority criteria, the priority metric representing the likelihood that an attempt to acquire and register with a corresponding wireless communications system will be successful.

21. (Currently Amended) A mobile station comprising:

a memory, in the mobile station, for storing a preferred roaming list, system priority data, and a priority data summary table; the preferred roaming list including a first plurality of system identifiers and corresponding acquisition parameters; and

processing circuitry, in the mobile station, adapted to for:

~~select each of a plurality of wireless communications systems in response to the preferred roaming list;~~

~~initiate acquisition/registration attempts by the mobile station in response to selecting each of the plurality of wireless communications systems, wherein the initiating utilizes the system identifiers and corresponding frequency information which are stored in the mobile station prior to the acquisition/registration;~~

~~create and maintaining the system priority data in response to the mobile station initiating the acquisition/registration attempts by the mobile station with wireless communication systems, the system priority data being stored in the memory and including a second plurality of system identifiers and corresponding priority criteria including historical statistical information regarding the acquisition/registration attempts by the mobile station based upon respective system desirability levels;~~

calculating priority criteria from the system priority data to determine desirability levels for respective wireless communication systems; wherein the priority criteria is stored in the priority data summary table;

selecting a group of wireless communications systems from the preferred roaming list in accordance with a predetermined system selection procedure, the group of wireless communications systems having a first system acquisition order; and

reprioritizing the group of wireless communications systems in accordance with the priority criteria stored in the priority data summary table, the reprioritized group of wireless communications systems having a second system acquisition order based upon respective system desirability levels.

~~detect a communications event for a currently selected wireless communications system; and~~

~~update the historical statistical information in the system priority data to reflect the occurrence of the detected communications event.~~

22-23. (Canceled)

24. (Currently Amended) The mobile station of Claim ~~23-21~~, wherein the processing circuitry ~~is further adapted to measure~~measures the power of a received signal corresponding to the currently selected wireless communications system and store the measured power in the system priority data.

25. (Currently Amended) The mobile station of Claim ~~23-21~~, wherein the processing circuitry ~~is further adapted to calculate~~calculates the signal to noise ratio E_c/I_o of a received signal corresponding to the currently selected wireless communications system and store the calculated signal to noise ratio E_c/I_o in the system priority data.